

WHAT IS CLAIMED IS:

1. A visual restoration aiding device for restoring vision of a patient, comprising:

an electrode array having a plurality of electrodes placed on or under a retina of an eye of the patient for applying an electrical stimulation pulse signal to cells constituting the retina;

a photographing unit which photographs an object to be recognized by the patient;

a converting unit which converts photographic data transmitted from the photographing unit to data for electrical stimulation pulse signals; and

a control unit which outputs an electrical stimulation pulse signal through each electrode based on the data for electrical stimulation pulse signals, the control unit controlling the signal output so as not to simultaneously output the electrical stimulation pulse signals through electrodes arranged within a distance that electrical stimulation pulse signals outputted through the electrodes will interfere with each other and the control unit switching between the electrodes used for outputting the electrical stimulation pulse signals and the electrodes unused for outputting the electrical stimulation pulse signals.

2. The visual restoration aiding device according to claim 1, wherein the control unit does not simultaneously output the electrical stimulation pulse signals through adjacent electrodes of the electrodes.

3. The visual restoration aiding device according to claim 1, wherein the control unit completely terminates the switching of the electrodes used for outputting the electrical stimulation pulse signals, within a duration needed for allowing the patient to recognize the object.

4. The visual restoration aiding device according to claim 3, wherein the control unit completely terminates the switching of the electrodes used for outputting the electrical stimulation pulse signals, in 1/30 to 1/24 second.

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5. The visual restoration aiding device according to claim 1, wherein the electrode array has a wiring circuit of an active matrix system.

6. The visual restoration aiding device according to claim 1, wherein
10 the electrode array has the electrodes arranged in a honeycomb pattern.